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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/341,549	07/13/1999	HANNU KARI	10178.115USW	5267

22865 7590 08/27/2002

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EXAMINER

FERRIS, DERRICK W

ART UNIT	PAPER NUMBER
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2663

DATE MAILED: 08/27/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.



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7590 08/12/2002
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Office Action Summary	Application No.		Applicant(s)	
	09/341,549		KARI ET AL.	
	Examiner		Art Unit	
Derrick W. Ferris		2663		

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 July 1999.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 August 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>3</u> . | 6) <input type="checkbox"/> Other: |

DETAILED ACTION

Response to Preliminary Amendment

1. **Claims 1-19** as preliminary amended (filed 7/13/1999) are still in consideration for this application (such that claims 4, 5, 6, 9, 13 and 14 have been preliminary amended, to remove multiple dependencies, and claims 16-19 have been added).

Claim Rejections - 35 USC § 112

2. **Claims 7, 8 and 19** are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Applicant fails to disclose how a parameter representing the service situation (i.e., a QoS parameter) is transmitted over either a broadcast channel or a point-to-multipoint channel. Instead, applicant discloses the following:

"If the parameter representing the service situation is determined in some fixed network element, such as a base station system BSS or the support node SGSN, this parameter can be sent to the terminal equipment (MS, PC) on a broadcast control channel. Suitable channels in the GPRS system are BCCH or PBCCCH, for instance. Alternatively, this parameter can be sent to terminal equipment (MS, PC) as a multicast transmission, such as a Point-To-Multipoint transmission. Instead of the multicast transmission, the parameter can be sent to one terminal equipment (MS, PC) at a time, as a Point-To-Point transmission or as a short message in the GPRS system. A multicast transmission and an individual transmission may be combined so that the parameter is sent to the terminal equipment generally as a multicast transmission but to a terminal equipment that has just registered to the network individually as a Point-to-Point transmission or as a short message, for example." [pages 5-6 of applicant's specification]

As noted from applicant's description above, not enough information is provided to enable someone skilled in the art to send or receive a QoS parameter over a broadcast [control] channel or a point-to-multipoint transmission. Examiner notes transmitting a QoS parameter over a

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traffic channel is well known in the art (such as that demonstrated by Chakraborty in the rejection used below) since QoS information is encapsulated with the actual data in the same packet or cell. Such obvious examples include either ATM information in the ATM header or IP information in a packet header (e.g., type-of-service or ToS bits). However, applicant merely states that a broadcast [control] channel or point-to-multipoint transmission is possible while not providing the details on how this is accomplished such as to enable one skilled in the art.

Applicant is reminded that no new subject matter may be added to the current specification.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1-3, 9-11, 13-15 and 19** are rejected under 35 U.S.C. 103(a) as being unpatentable over "Mobile Multimedia: In Context to ATM Transport and GSM/GPRS Mobile Access Networks" by S.S. Chakraborty.

As to **claim 1**, Chakraborty discloses in figure 2 [page 1941] a packet radio network comprising of at least one base station and at least one mobile terminal shown in the figure. The solution proposed by Chakraborty is an internetworking function (IWF) in the base station in order to provide the necessary translation between two disparate networks (i.e., a wireless network and a terrestrial network) [page 1938, lower-right column; page 1939, lower-left column (emphases placed on "Dynamic QoS Negotiation and Flow Control"]]. As shown in the figure, a header (or trailer) is added or removed

depending on the type of media (e.g., data sent between a mobile terminal and a base station over the wireless network using a wireless header and trailer for cell encapsulation. Noted in table 1 [page 1940] are various levels of service requested between a user (i.e., mobile terminal) and the network. Also noted specifically is lower available bandwidth and other QoS parameters available in the mobile air interface [page 1937, middle-right column]. Thus, quality of service (QoS) is performed between a mobile station and base station (as shown in figure 2) as is well known in the art using a scaled down version of ATM.

Not clearly shown in the reference is supplying the parameter(s) to the use of terminal equipment (e.g., a mobile terminal). Examiner notes that this would have been obvious to a skilled artisan prior to applicant's invention in light of the teachings of Chakraborty. Chakraborty proposes a solution of using an internetworking function between two disparate networks (i.e., the wireless and terrestrial networks). As disclosed, this information can either be transported as pure ATM or hybrid ATM (i.e., removing the ATM header and adding a wireless header or trailer as shown in the figure). Such that in either case the ATM quality of service could be preserved as would be recognized by a skilled artisan where ATM inherently incorporates different classes of service (e.g., CBR, VBR and ABR).

As to **claims 2 and 3**, shown in figure 2 is communication between the mobile terminal to the base station and vice versa. Thus the parameter could either be determined using the mobile terminal or base station depending on where the connection is setup (i.e., which network elements sends the ATM SETUP connection message first).

As to **claim 9 and 19**, the reference discloses many point-to-point applications. Such examples are shown in table 1 [page 1940] including end-to-end data connection for two-way presentation of text.

As to **claim 10 and 11**, the reference discloses more than one type of ATM class [page 1939, "Dynamic QoS Negotiation and Flow Control"]. This parameter could be determined for all class of quality of service in a packet radio network as is well known in the art for ATM.

As to **claim 13**, the reference discloses that ATM QoS can occur between the base station and the mobile station. Thus an ATM parameter can be passed between the two stations as is well known in the art prior to applicant's invention.

As to **claim 14**, shown in table 1 [page 1940] are various applications that can take advantage of ATM as is well known in the art. Thus applications such as video applications can take advantage of certain ATM parameters as is well known in the art.

As to **claim 15**, it is well known in the art that certain ATM variables can be set (e.g., SCR) such that if the value is below that variable (e.g., SCR), one level (or class) of service is offered and if that value increases to above that variable (e.g., SCR) then another level (or class) of service is offered (e.g., the data may or may not be discarded).

5. **Claims 1-3, 4-6, 9, 10-12, and 13-18** are rejected under 35 U.S.C. 103(a) as being unpatentable over "Mobile Multimedia: In Context to ATM Transport and GSM/GPRS Mobile Access Networks" by S.S. Chakraborty in view of "Real-Time Scheduling with Quality of Service Constraints" by Hayman et al.

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Examiner notes information presented in the 35 U.S.C. 103 rejection over Chakraborty is used as a basis for forming this rejection.

As to **claims 4, 5, 6, 16, 17, and 18**, Chakraborty discloses various QoS parameters as is well known in the art with respect to ATM. Examiner takes Official Notice that such determining factors as basis of utilization ration, basis of time stamps, success probability of resource reservation attempts, waiting times of resources reservations are well known in the art with respect to Quality of Service in general for either wireless of terrestrial networks. Thus it would have been obvious to a skilled artisan to apply said determining factors for Quality of Service in a wireless network in general. Furthermore, Hyman et al. discloses more examples of such constraints.

As to **claim 12**, as shown in figure 2, Chakraborty only shows sending the information to one, general, base station from which it is sent to a, general, mobile station. However, examiner notes that in light of applicant's specification it would have been obvious for a skilled artisan to also send this information employed as crossover criteria to other base stations. The obvious motivation for doing so is to maintain the level of service through the mobile user's connection in different areas serviced by different base stations. Should this occur, it would have been obvious to have all the base stations in the network be able to perform some type of internetworking function (IWF) as suggested by Chakraborty such that a parameter can be employed as a crossover criterion.

6. **Claims 1-3, 7, 8, 9, 13, 14 and 19** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,528,626 (EP 0565229 used in IPER).

As to **claim 1**, Brigida et al. discloses a method of communication between a base station (not clearly disclosed but which is well known in the art for a cellular system) and a mobile system, shown in figure 3. The reference discloses determining at least one parameter representing a service situation of a packet radio network [column 5, lines 40-46]. This parameter is then supplied to either the mobile or base station (depending on which element is transmitting). This is accomplished by sending the information after an escape character such that control logic 60 can be used to interpret the parameter (i.e., QoS information) [column 5, lines 6-15].

Not clearly disclosed by the reference are several classes of service for the quality of service determined. However, examiner notes that it would have been obvious to provide more than one level of service in light of the specification. One such example would be providing a class for each function monitored (e.g., utilization and propagation delay) using separate parameters for each function, hence forming different classes of service [column 5, lines 39-46]

As to **claims 2 and 3**, Brigida et al. discloses sending the parameter using either a mobile or a base station [column 5, lines 50-56].

As to **claims 7, 8 and 19**, as disclosed by the reference this information can be sent over any channel that has a data stream. Thus this information could be sent over a broadcast [control] channel. Furthermore, Brigida et al. acknowledges that the information can also be sent to more than one computer thus implying a point-to-

multipoint transmission [column 3, lines 55-63]. Examiner notes that unlike other prior art references, Brigida et al. can send the information over any channel as long as it's possible to send a control sequence such as an escape character. This is different from other art references where the service information is embedded with all the user data (e.g., via encapsulation).

As to **claim 9**, the reference discloses sending it to at least one mobile.

As to **claims 13 and 14**, the information parameter is sent to the user. This information could also be made available to application programs (e.g., displaying the information as disclosed by the reference) [column 5, lines 35-40; column 7, lines 4-23].

Double Patenting

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

8. **Claims 1-3, 9 and 13** are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over **claims 10 or 11** of copending U.S. Application No. 09/155201 (WO 97/36405). Although the conflicting claims are not identical, they are not patentably distinct from each other because the provisional application

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discloses determining at least one parameter representing the service situation of the packet radio network and supplying this parameter to the user of the terminal equipment.

As to **claim 1**, claim 10 or claim 11 of the provisional application discloses sending to all nodes (e.g., a base station) a parameter representing the service situation (i.e., QoS parameter from provisional claims 1 and/or 2) using one potentially innovative scheme of a two queue method with emphases added by examiner that QoS information is still sent back and forth whether a two queue method is used or not. Although the provisional application primarily focuses on transmitting a piece of information from the mobile user, in light of the specification, it would have also been obvious to receive this information (i.e., the QoS parameter) as well (e.g., “quality of service of the subscriber receiving the packet”[claim 1, lines 13]).

As to **claims 2 and 3**, this information can be determined from either the mobile or another network element along the way as disclosed by claim 10 of the provisional application.

As to **claim 9 and 13**, this information (from provisional claim 1) can be sent to other subscriber units such as a mobile that has just registered to the network.

Since the claims are open-ended, it would have been obvious to include or exclude features that applicants consider to be critical or non-critical, respectively for their invention.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

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Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Derrick W. Ferris whose telephone number is (703) 305-4225.

The examiner can normally be reached on M-F 9 A.M. - 4:30 P.M. E.S.T.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (703) 308-5340. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 305-3900.

Derrick W. Ferris
Examiner
Art Unit 2663

DWF 
August 8, 2002



MELVIN MARCELO
PRIMARY EXAMINER